



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/851,504

05/08/2001

Theodore F. Vaida

01-036

2218

24319

7590

11/07/2007

LSI CORPORATION  
1621 BARBER LANE  
MS: D-106  
MILPITAS, CA 95035

EXAMINER

DUONG, DUC T

ART UNIT

PAPER NUMBER

2619

MAIL DATE

DELIVERY MODE

11/07/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/851,504	<b>Applicant(s)</b> VAIDA ET AL.	
	<b>Examiner</b> Duc T. Duong	<b>Art Unit</b> 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 21-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21,22,24-31,33-35 and 37-42 is/are rejected.
- 7) ☒ Claim(s) 23,32 and 36 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 21-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding to claims 21 and 31, in lines 3-4, the claim called for a plurality of media access controller and plurality of programmable logic core, however, in lines 4-8, the claim called for a media access controller and a programmable logic core. Thus, it is unclear as to if a plurality or singularity element that is being claimed and as a result making the claims indefinite.

Claims 31-34 and 39 recite the limitation "first, second, and third MP-blocks". There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 21, 22, 24-31, 33-35, and 37-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerr et al (US Patent 6,920,562 B1) in view of Starr et al (US Patent 6,807,581 B1).

Regarding to claims 21 and 31, Kerr discloses a field programmable application specific integrated circuit 300 (fig. 2 col. 5 lines 4-10), comprising a plurality of programmable logic core blocks 500 (fig. 4 col. 6 lines 32-42), a media access controller 340 configured to transmit and receive network data (fig. 3 col. 6 lines 1-10 and col. 6 lines 28-31); a programmable logic core 700 having an array of dynamically configurable arithmetic logic unit (fig. 5 col. 7 lines 4-8), said programmable logic core configured to interface with said media access controller and implement least one said plurality of application level functions (col. 7 lines 32-52); an interconnect multiplexer MUX 470 couples to said a plurality of programmable logic core blocks and configured to switch said network data between ones of said plurality of blocks (fig. 4 col. 6 lines 43-49); a master subsystem 360 configured to receive said meta-data from each of said plurality of blocks and control said interconnect MUX to route said network data (fig. 3 col. 6 lines 15-31).

Kerr fails to teach for each of a plurality of programmable logic core blocks include a media access controller.

However, Starr discloses a network interface card comprising a media access controller for each network lines (fig. 15 col. 20 lines 60-67).

Thus, it would have been obvious to a person of ordinary skill in the art to arrange for a media access controller in each network lines as taught by Starr in Kerr's

Art Unit: 2619

blocks to allows the system functions as a network monitor to receive broadcast and multicast packets and implement multiple MAC addresses.

Regarding to claims 22 and 35, Kerr discloses the programmable logic core may be programmed while said least one application level function executing (col. 7 lines 53-56).

Regarding to claims 24 and 37, Kerr discloses the master subsystem is further configured to receive programming instructions from a host system (col. 5 lines 23-37).

Regarding to claims 25 and 38, Kerr discloses the data interconnect system 756 is further configured to transmit and receive said network data from a host system 20 (col. 6 lines 15-22).

Regarding to claims 26, 27, and 39, Kerr discloses the function master subsystem is capable of programming said programmable logic core based upon said meta-data or network data (col. 6 lines 15-31).

Regarding to claims 28 and 40, Kerr discloses at least one application level function is a content based routing (col. 6 lines 15-31).

Regarding to claims 29 and 41, Kerr discloses at least one application level function is an Internet Protocol encryption/decryption (col. 5 lines 23-37).

Regarding to claims 30 and 42, Kerr discloses the programmable logic core includes a management interface 350 configured to control and manage said media access controller (fig. 3 col. 10 lines 1-10).

Regarding to claims 33 and 34, Kerr and Starr fail to teach for compression/decompression network data. However, it would have been obvious to a

person of ordinary skill in the art to employ such compression/decompression techniques to network data to conserve bandwidth and for more efficient transmissions.

***Allowable Subject Matter***

4. Claims 23, 32, and 36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Duong whose telephone number is 571-272-3122. The examiner can normally be reached on M-F (9:00 AM-6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DD

  
WING CHAN  
11/5/07  
SUPERVISORY PATENT EXAMINER